

# Care of Young CITRUS TREES

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WE WONDER if there is anyone of the Old Timers who has the care of a young grove today that doesn't wish he had Old Mose, a good mule, and a one-horse plow and Acme harrow, to work the tree rows like he had thirty or thirty-five years ago. Perhaps we don't really want to go back to those antiquated methods, but one thing is sure, we kept the tree rows clean in those days and did not have many of the troubles we have today.

During the past few years we have found quite a few young groves that have been cultivated with a tractor and disc traveling at a high rate of speed (for a tractor) that has thrown the soil up close to the tree each way until the soil is several inches above the bud union. No notice was made of this condition until the trees ceased to thrive. Then upon close inspection it has been found upon digging down about the trunk of the tree that practically all trees were affected with a disease in the bark just above the bud union, sometimes referred to as collar rot. On trees in especially bad condition the trunks have been found to be completely girdled and the trees dying.

Often this condition is also brought on by not properly removing the banks from trees in the spring of the year after they have been banked for cold weather. In the old days, trees were hoed several times during the year and if the soil was not properly removed when the banks were taken down, it would be at a later hoeing of the trees. Now trees are seldom hoed and the soil remains there throughout the year.

It would be a good idea for every grower to check his young trees and see if this condition exists in his grove before such damage occurs.

If this condition is found, one of the most economical ways to remove the soil is to use a power sprayer with one nozzle spray guns using a

number eight or nine disc with 500 to 600 pounds pressure and plain water. In this way all soil can be easily removed from around the trunk and crown roots of the tree, getting upwards to one hundred trees to the 500 gallon tank. Upon opening up bud union and crown roots to the light and air, the diseased surfaces quickly heal if the trunks have not been completely girdled by the disease. The trees will quickly take on added vigor and growth.

Then there is also the matter of proper application of fertilizer. We should always bear in mind that the burning of the roots of young trees is possible with the use of any analysis of fertilizer under certain conditions. The higher the analysis of the fertilizer applied, the easier it is to cause damage and more care should be used in the application.

We have noted upon several occasions, where high analysis fertilizer has been applied to young trees by two persons, that the trees fertilized by one were not injured, while practically all the trees fertilized by the other showed either slight or severe damage. This plainly demonstrates that a high analysis fertilizer, 6 or 8 percent nitrogen, can be economically used on young trees if proper care is taken in distribution. However, if there is not the proper supervision of the application, then the grower had better stick to a 4 percent nitrogen and pay more money for the plant food used. Even then the fertilizer should be distributed evenly over the root surface and not thrown down in gobs or handfuls in one place. Often fertilizer is applied inside the cups when the trees are cupped for watering. This is extremely dangerous and damage often occurs unless sufficient water is applied soon after the fertilizer is applied.

Speaking of water, of course young trees should be kept well watered until their root system has become

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well established. They should never be allowed to show wilt. When the tops show wilt the roots have already become dry and by that time there is already damage done to the root system.

Another type of damage often found in young trees and which can easily be prevented with proper inspection and treatment, is the damage done by the grub of the orange sawyer beetle. When young trees are set, they quite often die back a short distance from the tops of the tree. Eggs of the orange sawyer beetle are laid in this dead wood and soon these eggs hatch. The larva is a white cylindrical grub which grows to a length of an inch. The head also is cylindrical so that borers of this family are called "round headed borers" to distinguish them from larvae of the metallic wood borers which have a flattened head. These borers eat dead or injured wood by preference but if the dead stub is not large enough to raise the grubs to maturity they are forced to work down into the living wood. If the young trees are not given close inspection and these dead tops cut back into live green wood and painted soon after the dying back occurs, the grower may find it is necessary to cut out the greater part of the young top he has grown in order to get beyond the borer, or the grub may weaken the top to the extent it will break off. In either event this means the loss of time in growing another top to the young tree. (See Bulletin 183, Insects of a Citrus Grove, by J. R. Watson).

The remarks we have made regarding the care of young citrus groves are elementary. With the thousands of acres of young groves being developed today we feel it timely to refresh our memory upon some of the elementary facts which might have been forgotten during the years when our time was devoted largely to bearing groves.



